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1.1 INTRODUCTION

Imperial Irrigation District (IID) is seeking a Small Power Plant Exemption (SPPE) for a nominal 93-megawatt (MW) simple-cycle power project (Project) in Imperial County, near the unincorporated community of Niland (Town of Niland), California. IID is a community-owned utility providing irrigation water and electric power to nearly 125,000 customers in its 6,471-square-mile service territory located in Imperial County, and parts of Riverside and San Diego counties (See Figure 2.1-1, IID Service Territory).

IID has been experiencing system-wide load growth of approximately 7 percent per year with load growth of 9 percent per year in Coachella Valley. Currently, the majority of IID's energy needs are obtained from resources outside of its service territory and imported over the transmission system to meet customer demands. Due to extremely high summer temperatures in the IID service territory, and the importance of air-conditioning to IID's customers, IID must provide highly reliable power to its customers. To enhance the ability of IID to reliably supply the critical energy needs of its customers, IID has established a goal to increase internal energy production to 50 percent of the annual energy demand within its service territory. At the same time, IID also desires to increase the energy efficiency of its generation portfolio. Thus, IID is developing the Niland Gas Turbine Plant (Project) to add 93 MW of internal, highly reliable and efficient peaking generation.

This SPPE request has been prepared in accordance with the California Energy Commission's (CEC) Power Plant Site Certification regulations. This SPPE provides:

- A detailed description of the Project and the Town of Niland.
- An assessment of the likely impacts of the Project on the existing environment.
- Proposed mitigation measures to ensure that environmental issues are properly and responsibly addressed.
- A discussion of the applicable laws, ordinances, regulations, and standards (LORS).

1.2 PROJECT OVERVIEW

1.2.1 Facility Location

The site is located northeast of the Town of Niland, California, on the 160-acre property (Property) owned by IID. The southern half of the Property is zoned for manufacturing and light industrial uses. The southwest corner of this Property currently contains an existing IID substation (Niland Substation) (see Figure 2.1-2, Project Location Map).

1.2.2 Facility Description

The Project will consist of two GE LM6000 PD SPRINT NxGen combustion turbine generators (CTG) with dry low nitrogen oxide ($NO_{x)}$ emission reduction technology and selective catalytic reduction (SCR). The Project will require a generation switchyard, an administrative building, and minimal natural gas and water interconnection facilities.

1.2.3 Project Site

The Project will be constructed on approximately 22 acres in the southwestern portion of the Property. The southern one-half of the Property is zoned "light industrial," which is suitable for the Project. A Conditional Use Permit will be required for construction activities.

1.3 PROJECT SCHEDULE

The IID service territory is characterized by very hot summers and mild winters. Due to the high summer daytime temperatures, construction activities will, to the extent possible, take place in the September-to-May time period. Following a favorable CEC decision on this SPPE application, IID will acquire all necessary permits for Project construction. Following the acquisition of these permits, the IID Board is expected to release major equipment for fabrication and retain the services of an EPC construction contractor. IID is hopeful that all CEC and local permits required for construction are obtained by November 2006 so that major equipment procurement and fabrication procurement can commence to support a Project completion in May 2008. This will allow the Project to serve IID customers during the summer of 2008, which is a critical component of the IID resource plan.

1.4 SITE SELECTION AND ALTERNATIVES

The Niland site selected by IID for this Project maximizes the use of existing electric transmission, natural gas and water infrastructure, and thereby minimizes environmental consequences related to utility interconnections. Natural gas will be supplied from two Southern California Gas Company (SCGC) pipelines located on the eastern edge of the IID Property. Water supply will be provided from a Golden State Water Company (GSWC) pipeline that traverses the Project Site.

Although alternative sites within Imperial and parts of Riverside counties were evaluated, no other sites were found to have the operational and environmental benefits of the Niland site.

The Project Site and technology were selected as part of a competitive bidding process (RFP#484) conducted by IID Supply and Trading from October 2004 through April 2005. RFP #484 was advanced to procure both base load and peaking resources to satisfy the requirements of IID's 10-year load and resource plan.

1.5 ENVIRONMENTAL IMPACTS

Project impacts on the environment have been evaluated and the results of the evaluation are submitted with this application. As the Project natural gas fuel line, water line, and electric interconnection are all located on the Property, or in very close proximity to the Property, there are no off-site environmental impacts associated with Project linears.

1.5.1 Air Quality

The Project will comply with Best Available Control Technology (BACT), as determined by the Imperial County Air Pollution Control District (ICAPCD). The air district has made an initial BACT determination for the Project and has also made an initial determination of the emission

reduction credits (ERCs) that will be required for Project operation. IID currently has banked all of the ERCs required to meet Project needs.

1.5.2 Water Resources

Virtually all water available in the Imperial Valley either comes from the Colorado River and/or is useful in the replenishment of the Salton Sea. For these reasons and others addressed in the Application, IID designed the Project to use minimal amounts of water. Based on the proposed permit limits, the annual water requirement will range from 13 to 21 acre-feet per year, dependent on ambient conditions. Water will be supplied from GSWC from a water pipeline that currently exists on the Property.

1.5.3 Wastewater

The project design results in essentially no process wastewater, reflecting its highly efficient and minimal water usage design. For the minute amounts of process wastewater that do result, IID will utilize a "zero liquid discharge" evaporation basin system, ensuring that no wastewater will leave the Project Site.

1.5.4 Other Impacts

There will be minor impacts to area traffic and noise levels, especially during construction. There will also be minor impacts that, with mitigation, are considered to be insignificant, such as the visual impacts of the Project. There will also be relatively minor impacts in the areas of biological, cultural, and paleontological resources. Finally, the current land uses, soils, and socioeconomic impacts from Project construction and operation will be negligible.

1.6 SUMMARY

In conclusion, construction and operation of the Project will result in the addition of efficient peaking generation resources within the IID service territory while resulting in no unmitigated adverse environmental impacts.